Public Works



CPI Legacy

A record of improvements made by the City of Salina, Kansas, since November 2012

CPI Improvements

November 2012 thru May 2016

SALINA CITY

Public Works 140 Improvements; 2 Best Practices

Administration (W-MEDIATE)

Waiting

1. Improved the responsiveness of administrative support by changing hours from 8:00am – 5:00pm to 7:30am – 4:30pm. General Services conducted a 90 day trial period during which they tracked customer interaction. The study found that there was more citizen interaction in the morning hours than in the late afternoon.

Mistakes/Defects

- 2. With the unanticipated retirement of the Public Works Director, his administrative staff reviewed his electronic files and reorganized them as needed. Duplicate files were deleted, and relevant files were distributed to specific work groups.
- 3. Improved quality by creating a "safety net" to ensure that all right-of-way permits are processed in a timely manner. By setting an expiration date on the staff's calendar, Engineering staff will be prompted to follow up with the contractor, reinforce pre-pour procedures, and then close the permit.

Excess Movement or Motion of Workers

- 4. Increased capacity in the administrative office by re-organizing the mailboxes alphabetically, and by moving the clerical mailboxes to a central location.
- 5. Increased workspace and efficiency and eliminated potential safety hazards by reorganizing the administrative area at the Public Works facility on Ash Street.

Do it Right the First Time

6. Created a single directional traffic flow plan in and out of the Public Works Facility in order to eliminate the safety hazard when pulling out of the driveway next to the Building Maintenance building at 418 Ash Street. Parked vehicles obstruct the view of east bound on-coming traffic.

Inefficient Processes

- 7. Improved efficiency of the PW administrative staff at General Services by reorganizing and renaming all of the files within their protected folder. They deleted duplicate files, combined folders, and relocated files to an unprotected folder when appropriate.
- 8. Increased capacity and reduced friction by eliminating unnecessary keys, reorganizing the remaining keys, making new key tags, labeling the key boxes

- and preparing a simple spreadsheet that identified how keys are organized for facilities and vehicles/equipment.
- 9. Increased capacity by switching from a paper leave request form to an electronic process by using a shared calendar. The supervisor considers the request by viewing the calendar and either accepts/declines the request.

Always do the Right Thing

10. Reduced costs by eliminating unnecessary turn arrows on North Street thru lanes.

Transporting Work

11. Eliminated the requirement to travel to the City Office building in order to scan documents by asking CT to create an electronic pathway that would activate the scanning feature on equipment already in service.

Excess Inventory

Central Garage (W-MEDIATE)

Waiting

12. Increased capacity by constructing a wall-mounted key organizer to visually display all of the keys used by employees in the Central Garage.

Mistakes/Defects

Excess Movement or Motion of Workers

- 13. Installed a telephone in the closet near the southeast work bay at the Central Garage to reduce travel time.
- 14. Increased capacity by purchasing a service cart that reduces the number of trips to and from the mechanic's main tool box.
- 15. Increased capacity by purchasing remote controls to open/close the three west-side garage doors. This saves time as employees exit and re-enter the garage with vehicles/equipment multiple times through the work day.

- 16. Reduced replacement costs by removing the ejector wall from the sanitation truck and repairing it on site.
- 17. Reduced costs by rebuilding a high mileage police vehicle with parts from a recently wrecked police vehicle. They were able to purchase the wrecked unit back from the insurance agency and salvage the good parts.
- 18. Increased capacity and reduced costs by eliminating the hydraulic oil drums, hand pump, barrel cart and replacing them with a pneumatic dispensing system.
- 19. Increased capacity by developing a check sheet that lists the 28 most common reasons customers call, along with space available for a description of the problem. This form enables clerical staff to quickly record pertinent vehicle information without requiring a detailed explanation or use of technical jargon.

- 20. Increased capacity by installing a universal air coupler on the air jack, so only one hose is now required to complete a tire change operation on heavy trucks. In the past, two hoses were needed; one for the jack and one for the impact wrench.
- 21. Reduced costs by purchasing a cleaner/lubricant fuel additive in 55 gallon drums, rather than in 1 gallon containers.
- 22. Reduced costs and improved safety by installing a retractable hose reel for the bay hose, thereby keeping it off the ground and out of the way of vehicle traffic.
- 23. Increased capacity and reduced friction by creating a shadow board to store specialized tools used in heavy equipment repairs. An old tool board was cleaned, repainted, each tool outlined and hangers were attached.
- 24. Improved safety by purchasing four lock-out/tag-out steering wheel covers that secure the wheels in place while repairs are made. Two covers are for heavy trucks and equipment, and two covers are for light duty vehicles. The Central Garage's Lock-out/tag-out policy has been revised and training provided to technicians.
- 25. Reduced costs by purchasing DEF in bulk and storing it in a 330-gallon container that has a pump and nozzle.

Inefficient Processes

Always do the Right Thing

- 26. Improved workplace safety by fabricating a four-sided steel cage to store propane tanks. These tanks are now protected from damage.
- 27. Reduced costs by converting the Account Clerk II position at Central Garage to a Part-time position temporary position.
- 28. Increased capacity and potentially increased vehicle engine life for the fleet by purchasing a coolant vacuum to remove damaging air trapped in coolant systems.
- 29. Reduced costs over and above the savings already captured during the initial Process Review Report that reduced the Account Clerk II position in Central Garage from full-time to part-time temporary. This position had been staffed by a temporary until processes could be documented for the two administrative positions at the Public Works facility. Based on this new review these two administrative positions absorbed the workload from the clerical position in the Central Garage and the temporary position was eliminated.
- 30. Increased capacity by installing a 25 gallon oil drain/dispensing unit in the lube pit to reduce 1) the number of trips up/down the lube bay stairs, 2) the risk of slips, trips and falls while carrying buckets of waste oil, and 3) the likelihood of employee knee and back injuries while emptying buckets of oil.
- 31. Reduced exposure to employee hand and arm injuries or damage to vehicle components by providing technicians with a fan clutch assembly removal tool.
- 32. Improved shop cleanliness by installing castors on the bottom of the brake lathe, so that employees can easily move it and clean debris off the floor.
- 33. Improved safety by building two 4' X 6' portable welding screens that can be moved to wherever welding is to be done.
- 34. Increased capacity by purchasing a brake caliper removal tool in lieu of using general tools, which could damage the caliper and increase the likelihood of employee hand injuries.

- 35. Avoided spending on the purchase of a new factory mower bracket for unit #803 by asking a local business to replicate the part using a higher-grade steel, thus increasing the life expectancy of the part.
- 36. Avoided spending by using Public Works own resources to minimize outsourcing costs when replacing the old fuel dispensing system at 315 E Elm. This fuel site provides fuel services for city and county vehicles and is capable of dispensing fuel to emergency responders during power outages.

Transporting Work

- 37. Developed a file on the P Drive where the Central Garage Monthly Reports could be stored, thereby providing all departments with direct access to their information, while eliminating printing and distribution costs.
- 38. Increased capacity by purchasing a new floor scrubber to clean and dry the central garage floor. This equipment has improved the overall appearance of the garage, but more importantly will reduce the possibility of slips, trips and falls.

Excess Inventory

Engineering (W-MEDIATE)

Waiting

39. Increased capacity by accessing Google Maps/Street View when conferring with customers, rather than performing on-site visits.

Mistakes/Defects

- 40. Reduced errors when enforcing safety codes pertaining to sidewalk violations. This was done by clarifying criteria that identify sidewalk code violations and adding guidelines that will make it easier to spot them.
- 41. Increased shading for the school playground, and added an environmental/artistic component to the curb line by adjusting the sidewalk elevation on the north side of Iron Avenue near Oakdale School. This accommodation saved four mature oak trees from being destroyed.

Excess Movement or Motion of Workers

- 42. Increased capacity, reduced excess movement, and reduced friction by purchasing an "APPROVED" stamp for the Civil Engineer II to use, instead of requiring the Civil Engineer II to retrieve and return the one assigned to the Administrative Assistant II's work area.
- 43. Used 6S principles to reorganize the GIS Office by removing little used office furniture and reorganizing the rest. This resulted in doubling the amount of free space available and creating a new work area for training or technical support.
- 44. Issued electronic keys to the exterior building doors for use by inspectors who need access to the building. This will permit inspectors to work outside of their normal work hours due to project scheduling.

- 45. Increased capacity by obtaining a key to Room 103A, which is often used for meeting, but has been closed in the past.
- 46. Avoided paying the City's share of a joint project with the Corp of Engineers to stabilize the Smoky Hill River bank. This money was to be set aside beginning in 2016 based on a 65/35 split (65 Federal/35 City). After a flood event on July 13, 2013, the City argued that this project qualified under the Flood Control Act of 1954, which required the Federal Government to pay for the entire project. This argument was accepted, federal funds were applied for, and on 21 November 2014 a Cooperation Agreement was signed between the City and the Corp of Engineers, which states that the Corp of Engineers will complete all work to stabilize the embankment at no cost to the City. This was a joint project involving both Utilities and Public Works.
- 47. Avoided spending money to purchase a new magnetic locator. When the City Surveyor's magnetic locator stopped working, he repurposing a discarded utility line locator that could provide the same function. Avoided spending money to purchase a new magnetic locator. When the City Surveyor's magnetic locator stopped working, he repurposing a discarded utility line locator that could provide the same function.
- 48. Improved customer service by creating an electronic distribution list for processing the application for licenses to move an oversized load. This distribution list includes the Railroad, Kansas Gas Service, Westar Energy, Cox Communications, AT&T, City Forester, Building Inspector, Fire Chief, General Services, City Engineer, Police Department, and City Clerk.
- 49. Improved the process for inspecting fire line pressure test for new commercial construction by shifting these responsibilities from Engineering to Utilities, which is where these responsibilities would normally reside.
- 50. BEST PRACTICES: Avoided costs by excluding a portion of the roadway in the North Ohio Street Project that had been recently milled and inlayed.
- 51. BEST PRACTICES: Avoided costs on road maintenance for the Ohio Street Project by redesigning the pavement plan to exclude areas where existing pavement markings are still in good shape.

Inefficient Processes

- 52. Eliminated the requirement to file excavation permits in two separate locations within the Public Works Office (clerical and inspector). The change has eliminated duplicate work.
- 53. Increased capacity by eliminating the requirement to provide a Road Construction Update, since this information is already being provided through other means.
- 54. Increased capacity by eliminating the requirement to maintain bi-weekly timesheets that tracked hours worked each day. The City Engineer felt that with three years of data already collected, the continued collection of this data was no longer relevant.
- 55. Reduced clutter and duplicate files by using the 6S approach to organize materials kept in the fire proof vault: Excess items were disposed of or transferred to another department, plans were scanned and archived, flat surfaces that encouraged clutter were eliminated.
- 56. Improved efficiency and reduced friction by installing a white board that can provide quick access to project information needed by inspectors when completing forms and reports.

- 57. Increased capacity by creating a drop down menu in the GovPartner Plan Review database to eliminate cutting and pasting the information from another department.
- 58. Increased capacity by creating a Quick Fix Form that was fill-able, just requiring that you tab to the next entry. Other departments are also able to use this form, thereby increasing its value multifold.
- 59. Increased capacity in the Land Surveying process by "exporting data creating text file", while still in the field. This task had previously been done in the office, but by starting it while still in the field it expedited processing and improved efficiency.
- 60. Increased capacity by adding additional language to the form used by inspectors. This language prompts them to provide status data that is needed by the administrative staff when entering the inspection information into GovPartner.
- 61. Increased capacity by redesigning the sanitary sewer wye locate process to pre-populate much of form, "Record of Sanitary Wye Location". Redesigning this form has also reduced the number of routine interruptions experienced in Engineering.
- 62. Increased efficiency and improved customer service by modifying an application form that property owners use to request a time extension for repairing sidewalks. Instructions were added that clarified which sections of the form the customer was responsible for filling out.
- 63. Improved customer service by using just one system (GovPartner) to issue all permits, sidewalk concerns, and follow-up inspections. Each employee who is part of the system has a "dashboard" that identifies the tasks that need to be accomplished.
- 64. Improved customer service by updating and clarifying the guidelines for Dumpster Permits. These updates make it easier for our customers and staff to understand where to place a dumpster and when a permit is necessary, thus reducing friction.
- 65. Facilitated the transition for the new Public Works Director by organizing the paper files, eliminating duplicate files, and scanning relevant documents that need to be retained.
- 66. Reduced the amount of office clutter and incoming mail by identifying and cancelling 28 subscriptions that were not needed, and not being paid form, which had accumulated over time.

Always do the Right Thing

- 67. Improved community relations by creating a separate distribution list for road construction news releases to include all schools, colleges, Salina Regional Hospital, OCCK, and the Salina Airport Authority. This will help keep them informed of any road construction that may be in their area.
- 68. Increased capacity by moving weekly meetings from room 105 to an internal Engineering area. This space became available after applying 6S to organize the fire proof vault. A table and chairs were repurposed from other areas.
- 69. Avoided spending \$240 annually by uninstalling, reinstalling and reconfiguring the Engineering Division's external Web server C and D Drives. While each drive is equally divided, actual usage resulted in an imbalance where the C Drive had become burdened. By transferring user installed

software from the C to the D drive, balance was restored and additional storage costs avoided.

Transporting Work

70. Reduced costs and expedited processing by scanning and emailing excavation permits to employees, rather than printing them and having them delivered through the internal mail system.

Excess Inventory

Flood Control (W-MEDIATE)

Waiting

Mistakes/Defects

Excess Movement or Motion of Workers

Do it Right the First Time

- 71. Increased capacity by installing a hitch mounted, tank chemical sprayer for the back of a pickup truck. This has allowed Flood Control to more efficiently control weed and tree growth in smaller areas. With this new sprayer, the Flood Control Foreman can spray areas of the levee on an as-needed basis, while he is checking gopher traps, etc.
- 72. Facilitated faster response times at the onset of floods or other disasters by reconditioning an unused trailer, building supports to hold barricades, and pre-loading barricades inside the trailer.
- 73. Increased capacity by building an extension blade for the tractor bucket of unit #804 with recycled left-over pieces of metal. This will help blade the windrow of material off the side of the levee when repairing the hike and bike trail.

Inefficient Processes

74. Reduced costs by assigning maintenance of the hike and bike trail on the levee to City staff, rather than contracting it out. This will also improve overall stability and consistency, and reduce repair requirements. A new aggregate mix was designed to better meet the needs of bicyclists, pedestrians, and the City staff.

Always do the Right Thing

- 75. Improved employee safety by designing and building a tool to fit the squeeze points for the large animal body-grip traps. This tool enables staff to set the traps without risking injury to their fingers or hands.
- 76. Increased capacity by repurposing a storage tank and fabricating an extendable spray bar with a hand sprayer attachment. This sprayer is to be used on the levee hike and bike trail, rip rap and other locations. The tank holds 200 gallons of herbicide with the spray bar adjusting from 2 to 11 feet wide and a hand sprayer capable of spraying 34 feet from the cab of the truck.

<u>Transporting Work</u>

Excess Inventory

Household Hazardous Waste (W-MEDIATE)

Waiting

Mistakes/Defects

Excess Movement or Motion of Workers

Do it Right the First Time

Inefficient Processes

Always do the Right Thing

77. Reduced costs by purchasing a vermiculite loose-fill insulation from Menards rather than from a HazMat contractor.

Transporting Work

Excess Inventory

Landfill (W-MEDIATE)

Waiting

Mistakes/Defects

78. Reduced repair costs and expedited repairs by replacing a broken step pin on compactor unit #1841. The equipment is inoperable without the step in place. An outside welding service advised that it would be at least a week before they could make the repairs needed.

Excess Movement or Motion of Workers

- 79. Increased capacity by performing a 6S project at the Landfill where they created specific locations for tools, equipment, and supplies in each of their storage buildings so that they could be readily found.
- 80. Increased capacity by fabricating and installing grease gun racks in all three landfill shop buildings. The racks are highly visible and make the grease guns easily accessible.
- 81. Increased capacity of employees by relocating the copy machine at the Landfill from the Superintendent's office to the conference room, where all employees have immediate access to it.
- 82. Increased capacity by purchasing a handheld, air-powered grease gun to perform scheduled maintenance on the equipment at the Landfill. The new air-powered grease gun is much easier to control and more efficient than the older, manual-pump grease gun.

- 83. Improved the timeliness of opening at the Landfill on Monday mornings by having the Saturday crew prep Monday's work area at the end of their shift.
- 84. Standardized the "customer greeting" at the Landfill in order to provide clarity and consistency for customers.
- 85. Standardized the hand signals used by the Landfill staff to communicate with equipment operators in order to eliminate confusion and more effectively communicate.
- 86. Assisted in preparing the future construction area of Cell 19 by removing an abandoned 16" water line that ran through it and selling it as scrap metal.
- 87. Reduced costs by making minor repairs on the landfill compactor (replaced a broken hydraulic line), rather than requesting service from the equipment provider.
- 88. Avoided the purchase of a new weighing scale at the landfill by having it repaired on site. A new prefab deck replaced the older concrete deck which was falling apart.
- 89. Increased capacity by using jail trustees to pick up litter at the landfill in lieu of employees. Jail trustees are used when high wind events occur and the Landfill Staff cannot meet KDHE requirements.
- 90. Reduced the purchase costs of grease used to lubricate large landfill equipment by nearly 2/3rds by switching vendors.
- 91. Reduced costs by rebuilding an H826 compactor rather than purchasing a new one. The warranty was also renewed and increased eight fold.
- 92. Completed construction of the leachate pond and put it into service in December of 2014. The utilization of the leachate containment pond in 2015 has resulted in 473 loads of leachate (1.9 million gallons) not having to be hauled for disposal, which increased capacity between January 1 and June 30 of 2015. This amount of leachate is only generated when there are active refuse cells with minimal refuse place in them, which occurs only once every 5 years.
- 93. Reduced net costs by picking up the landfill's new roll-off container in lieu of paying the vendor to ship it from Kansas City.
- 94. Improved service quality and reduced friction by creating a form to track the number and size of tires brought to the Landfill for disposal. This simple form provides the scale attendant accurate information so that charges to customers are correct.
- 95. Increased capacity and reduced friction by consolidating tire storage into a lean-to area within a storage building and stacking the tires into individual bays according to the size and type of equipment.
- 96. Improved service quality and reduced friction by updating and simplifying the scale house procedure handbook. This new handbook is more visual showing all needed steps when performing scale house duties.
- 97. Improved service quality and reduced friction by repurposing a discarded desk and enclosed hutch to store equipment manuals. The manuals can now be sorted alphabetically and stored in an enclosed bookshelf away from dust/grime.
- 98. Increased capacity and reduced friction by reorganizing and labeling the filter storage cabinet. Storage bins are now labeled with equipment numbers

matching the number on the filter. Additionally, all o-rings and gaskets are attached to the correct filter.

Inefficient Processes

- 99. Performed a process review of landfill operations and identified ways to reduce costs over the next 5 years by: (1) pre-excavating cells as far as possible, (2) creating a leachate pond and using gravity fed leachate conveyance lines, (3)switching to electrical pumps in lieu of pneumatic pumps when pumps are still required, (4) reducing the amount of sand use for leachate conveyance, (5) having the D7 Dozer and the 826H Compactor undergo a Cat-certified rebuild, rather than replacing them with new equipment this reduced replacement costs by 56%, (6) reducing hours on Saturday (open 1 hour later), and by (7) balancing the workload of the landfill staff.
- 100. Increased worker capacity by increasing the litter hauling capacity of the Landfill's two UTVs, which enable staff to collect litter from locations that are unreachable by full-sized vehicles. By using scrap materials from previous projects staff constructed two large wire cages that fit into the hauling space behind the driver. These wire cages increased hauling capacity has reduced the number of trips needed to unload litter.
- 101. Increased capacity by fabricating a hanger for a 5 foot bar magnet to fit on the front of a UTV. The magnet was repurposed from an old road broom. This allows nails, screws and other metal objects to be gathered from roads or parking areas, reducing the number of flat tires for both customers and staff.
- 102. Increased capacity by changing the contact information on the Kansas Department of Health and Environment (KDHE) Special Waste Authorization form from the Public Works Operations Manager to the Landfill Superintendent. This will permit the customer to call the landfill direxcty to schedule disposals.

Always do the Right Thing

- 103. Repurposed 600 feet of 6' tall chain link fencing that was being replaced at Bill Burke Park. This fencing will be reused as temporary litter control to restrict the movement of wind-blown debris.
- 104. Improved service quality by activating CAT Product Link on units 1841, 1842, 1845, 1846 and 1851. Product Link is a remote monitoring system that enables improved fleet management including: maintenance needs, component lifecycle, working vs. idle time, diagnostic codes, hours and fuel usage, parts ordering and fluid analysis.
- 105. Increased capacity and avoided spending money by fabricating and installing two swing gates for the south road. Shutting the gates when the wind is blowing out of the north helps reduce the amount of litter that blows into the south field. The gates are covered with mesh fencing to help catch the blowing litter. The gates were fabricated using scrap materials from previous projects at the landfill.
- 106. Increased revenue by negotiating a contract with the Solomon Corporation to accept their special wastes. The eligibility of these types of waste was vetted through KDHE, and Salina received a Special Waste Authorization for this material.

Transporting Work

Excess Inventory

Sanitation (W-MEDIATE)

Waiting

107. Improved communication and reduced waiting time by adding call waiting and caller ID to the HHW phone line. If another call is received, the phone displays the caller's telephone number. It also enables staff to contact citizens who leave messages without leaving their phone number.

Mistakes/Defects

Excess Movement or Motion of Workers

Do it Right the First Time

108. Administrative staff at the Public Works facility improved employee morale by adjusting employee clothing requirements to better fit the work environment; authorized administrative employees in this facility to wear jeans.

Inefficient Processes

- 109. Increased capacity by creating a more user friendly route book report for Sanitation employees.
- 110. Increased capacity by purchasing an invoice stamp for the Sanitation Supervisor and the HHW Coordinator.
- 111. Increased capacity by eliminating the acceptance of alkaline batteries. The practice of recycling alkaline batteries was discontinued in 2010, however, they have continued to be accepted and weighed to record the drop off, but were then thrown into the trash to be taken to the Landfill. Only rechargeable, lithium, and button cell batteries are recycled. Alkaline batteries are not considered hazardous waste and are disposed of in landfills throughout Kansas.
- 112. Increased capacity by eliminating a report previously used to track sick leave usage.

Always do the Right Thing

113. Improved communications during HHW presentations to schools, fairs, or other venues by purchasing an amplifier that allows the presenter to be easily heard, even in sometimes noisy conditions.

Transporting Work

Excess Inventory

Streets (W-MEDIATE)

Waiting

Mistakes/Defects

Excess Movement or Motion of Workers

- 114. <u>Streets (& Patrol)</u>: Reduced overtime costs by eliminating the requirement for Streets employees to respond to after-hours emergencies when barricades are required by the Police Department. The PD purchased their own trailer and filled it with barricades for immediate access.
- 115. Increased capacity by installing a hanging signature file (inbox & outbox) on the wall next to the Operations Manager's office. This enables the Operations Manager to more quickly identify those documents requiring immediate attention and signature, and it reduces administrative staff time to sort through documents for pick-up and processing.
- 116. Increased capacity by installing a wall-mounted clipboard in the Operations Manager's office to more quickly identify the status of performance evaluations.
- 117. Increased capacity by installing a large screen computer TV/monitor in the Operations Manager's office that enables administrative staff, superintendents, and the Operations Manager to simultaneously review projects (contracts, jobsite data, maintenance spreadsheets, memorandums, plans & specifications, property mapping, proposals, presentations, etc.).

- 118. Increased capacity, but more importantly significantly impacted Streets ability to provide services in a timely manner by converting an old, unused trailer-mounted water tank unit into a stand-alone, skid-mounted unit that fits into the bed of a ¾ ton pickup truck. This configuration allows crews to put the tank into the truck's bed and haul the walk-behind saw trailer simultaneously. Now two crews can have walk behind saws and water tanks on different job sites at the same time, which enables them to perform multiple high-priority tasks simultaneously.
- 119. Increased capacity and avoided purchasing a new single axle trailer by rebuilding an old single axle trailer so that it would haul a zero-turn mower, two weed eaters, a guardrail mower, gas cans and trimmer line.
- 120. Increased revenue by reorganizing the Quonset hut, and then selling the scrap materials found therein. This new organization now provides out of the weather storage for vehicles, trailers, equipment, and supplies.
- 121. Increased capacity by building a scrap metal bin to recycle left-over pieces of metal. By using a pallet and old signage, a scrap metal bin was built to store pieces of metal that can be used for future projects. The creation of this bin centralized storage for all metal scraps into a single location.
- 122. Increased capacity by building a work bench, and organizing the tools and equipment in the street barn shop. This also improved employee safety while cutting metal with the chop saw, provides more room for larger projects, and enables the supervisor to better monitor the tool and equipment inventory within the shop. There was an initial cost of \$455 to purchase the metal surface and supports for the work bench. Everything else was made from scrap metal.
- 123. Increased capacity and reduced friction by cleaning an old cabinet that was not being used to its full potential and repurposing it to serve as the central

location to store generators, related tools and equipment within the Street Barn.

Inefficient Processes

- 124. Increased capacity by using 6S principles to create a central location for the Street Work group to organize their tools.
- 125. Increased capacity to collect leaves and avoided the purchase of a new leaf storage truck by modifying an obsolete sanitation packer truck to include a leaf collection hose connected to a vacuum. This modification increased capacity to collect leaves by 5 yards, and resulted in a significant cost avoidance, when compared to a new truck, even after deducting expenses for modifications.
- 126. Increased capacity by building portable fence posts to be used in locations where digging is difficult.
- 127. Increased capacity be selection a centralized location where generators and related tools and equipment could be stored.
- 128. Improved efficiency by creating a shared folder that maintains information required by Finance for street cuts. Both Utilities and Streets can now enter their data into the same form. Additionally, the new form provides a job number that facilitates communication between the two departments.
- 129. Increased capacity by using 6S principles to organize the storage area in the Street Barn.
- 130. Increased capacity by using 6S principles to better organize the tire storage area in the Street Barn.
- 131. Increased capacity by mounting shelves in a centralized location within the Street Barn for the storage of air tools, attachments, snow plow equipment and salt spreader parts. Previously these items were stored in multiple locations.
- 132. Increased capacity and reduced costs by building (from scrap metal) a device for removing wooden stakes that are used for concrete slab, and curb and gutter repairs.
- 133. Increased capacity of concrete crews by eliminating the need to load a truck or trailer with wire mesh. Staff re-purposed an old, unused water tank trailer to now carry concrete wire sheets from General Services to concrete repair sites. The trailer does not require a CDL license.
- 134. Avoided costs by converting a 1999 dump truck with a chassis-mounted salt spreader into a flat-bed truck by using salvaged bridge planks. This truck may now be used as a salt spreader, a 550-gallon water truck, or a flat-bed utility vehicle.
- 135. Reduced mowing costs by reducing the amount of ROW area mowed by a city contractor.
- 136. Increased capacity by fabricating brackets from used scrap metal onto the frame of the zero-turn mower, so that the operator can carry a weed eater with him and thereby eliminate trips back and forth to his truck.

Always do the Right Thing

137. Increased capacity and reduced safety risks considerably by building a post driver that can be attached to the front of a wheel loader bucket in order to help set T-posts into the ground more safely. Previously an employee had to physically hold the post under the bucket of the wheel loader in order to set it.

138. In response to a customer complaint regarding dangerous conditions caused by limited visibility when entering traffic on W. Ash Street near the General Services facility, General Services coordinated with the City Manager's Office, Engineering, Police Department, Risk Manager and others to identify an appropriate solution. Using Wichita's site triangle two parking spaces were found to be contributing to the problem. "No Parking" signs were installed for these two parking spaces and a traffic mirror was installed on the Westar pole to improve visibility around the Street Barn. This solution will be re-evaluated next year to determine if it was successful.

Transporting Work

Excess Inventory

Traffic Control (W-MEDIATE)

Waiting

Mistakes/Defects

Excess Movement or Motion of Workers

139. Increased capacity by relocating sign mounting brackets from a separate storage area to the sign assembly area.

Do it Right the First Time

- 140. Increased revenues by separating aluminum from other scrap metal and selling it separately.
- 141. Increased capacity by identifying a central location where temporary traffic signs and related equipment could be stored.
- 142. Increased capacity by replacing traffic loops during pavement replacement. This reduces the likelihood of needing to trench traffic loops at existing intersections, which requires setting up traffic control, sawing pavement and sealing the saw joints after the loop wires are installed.

Inefficient Processes

Always do the Right Thing

Transporting Work

Excess Inventory